Feb. 21.

An

Inaugural Dissertation

on

Phlegmasia Dolens.

by —

Wm. Gray — Maryland

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Phlegmasia Dolens.

This disease is one of a very interesting nature: And since the time of Hippocrates the great Father of Medicine until the present period, it has commanded the attention and talents of several eminent men of the profession. It must have been coeval with the complaints incident to the puerperal state, though it appears to have been only slightly noticed by the Ancients. I believe it is a disease of very rare occurrence. Mr. White of Manchester, in his Inquiry, &c. &c. says — That out of 1897 women delivered at the Westminster general Dispensary, five only were attached with it: and of 8000 women delivered at the Manchester Lying-in-Hospital and their own houses, no more than four were affected by this complaint; and I believe it is equally rare in America.

Dr. Dewees (if I am not mistaken) stated before the Medical Society, that he had delivered upwards of 8000 women, and but seven or eight cases of this disease had occurred to him.

General History.

Phlegmasia Dolens principally affects women in the puerperal state; but to this general rule there are a few exceptions, cases of the disease having appeared in the male; also in the female independently of the parturient state. It is very irregular as to the time of its appearance; sometimes commencing in twenty-four or forty-eight hours after delivery, and at other times not until a month, or even six weeks have elapsed; but in general the attack takes place from the tenth to the sixteenth day after parturition.

It usually comes on with a pain, uneasiness, or stiffness in the Lumbar, Hypogastric, or Inguinal regions, accompanied by a considerable degree of fever, which is sometimes preceded by cold sensations, and vice versa. In the course of a few hours after the attack, the limb swells, becomes very tense, extremely painful, and very tender to the touch; in fact, so very tender is the part, that with great difficulty the patient permits you to touch the limb. The external appearance is preternaturally white and of a glossy shining aspect. The swelling and tumefaction extends from the groin to the foot & labium

pudendi of the same side only. The affected extremity frequently arrives at double the natural size, and sometimes to a much greater extent; it is hot and very tender, but is not attended with any redness of the surface; it is even and equable to the touch in every part except where the conglobate glands are situated, which are in some cases knotty and hard, as in the groin, the ham, and about the middle of the leg at its back part. In some cases, the lymphatic vessels can be distinctly traced by the sensation of touch; and in other instances there is perceived in their course a slight streak of a scarlet hue, indicating them to be in a state of inflammation. When the limb is pressed upon by the finger it is found to be elastic, little if any impression remaining, and that only for a very short time. If a puncture or incision be made in the limb, in some instances no fluid is discharged; but in others a small quantity only issues out which soon coagulates. This complaint does not invariably commence at the upper part of the thigh; it has been known to begin in the foot, the middle of the leg, the ham and the knee.*

* Professor James stated to me, that in one case that came under his notice, the first symptom observed by the patient was a violent pain in the calf of the leg; and in another case, the patient was seized with pain in the heel extending up the course of the lymphatics

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It is of little importance to the patient in which of these situations it fixes its grasp, for in a very short time it is diffused throughout the extremity.

The most frequent termination of the disease is in resolution, or a removal of the effused fluid by the absorbents; it sometimes (though I believe very rarely) terminates in suppuration. Whenever the latter result occurs, it is either from neglect or improper treatment; at least in a majority of cases.

Phlegmasia Dolens never attacks both limbs at one time; but it is frequently translated from the one to the other. Women in all situations, and under every circumstance, are liable to an attack of the disease in question: The rich, the poor, the delicate and the robust, those who give suck, and those who do not.* It does not appear to depend upon the state of the lochial discharge, nor upon the habits of the individual, as regards exercise and diet: it occurs in the country as well as city; to those who had every possible attendance, and to those who had none at all; after their first, or any other labour, and whether the labour be natural, preternatural, or complex.

* Out of 14 cases related by Mr. White, eight of the patients did not give suck.

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Remote Causes.

I am inclined to believe, from a variety of circumstances connected with the nature and treatment of this disease, that the state of pregnancy and parturition predisposes the woman in some manner to an attack of this disorder. But if we place any reliance on the judgment and assertion of Dr. Robert Thomas and I see no reason to doubt either, we must be convinced of the reality of its appearance in the female independently of any state connected with parturition.*

And if we consult Dr. Ferriar's Medical Histories and Reflections vol. iii we shall find cases related where it occurs in the male subject.

Mr White in his treatise on this complaint, observes, says he "and it may be owing to an intermediate bought on the trunks or branches of the sympathetic or on the glands, by the presence of the disease and when them during the progress of cure, this may produce an adhesion of the cells of the glands, and make them impervious, and cause a stagnation

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* Practice of Physic page 707

of Egypt in the extent, and that, not as the disease is supposed that the disease is dependent upon an inflammation of the lymphatic and lymphatic vessels, only I say; but to the above said manner of accounting for this inflammation, I will give some division.

1 That nearly the same kind of pressure exists in the circulation for some time before delivery, as at the time of labour.

2 That Phlegmasia Dolens does occur in women that have had the most natural and easy labour, where it is free and no such violent pressure does take place.

3 That independently of every state connected with parturition the disease has been known to exist.

After making another conjecture, Mr. Weir, page 49 asks the following question. "Is it not more probable that this disease is owing to the child's head pressing the lymphatic vessels or vessels which arise from one of the lower extremities, against the brim of the pelvis during a labour pain, so as to stop the progress of the lymph, and the saliva preventing a regurgitation, the vessel at last bursts and sheds its contents,

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though its coats should be allowed to be stronger than those of the blood vessels? We should not hesitate a moment, I think, in answering this question in the negative; for,

1. If a rupture of the lymphatics did take place in the progress of parturition, ought not the disease in every instance to manifest itself immediately after delivery, or what becomes of the stagnated lymph during the space of ten, fifteen or twenty days after the accident?

2. In cases that have required the alteration of the axillary glands, where the obstruction of the lymphatic vessel having been the cause is self evident from the very nature of the operation: but still this disease is never the consequence.

3. In the application of the tourniquet upon the extremities, a rupture of the lymphatics has never been known as a consequence or even suspected.

Dr. Hull, page 198 observes "that the predisposing causes appear to be an increased irritability and disposition to inflammation, which prevails during pregnancy, and in a still higher degree for some time after parturition." — Then, the exciting causes he enumerates the following:

"Violent contractions of the muscles inserted into the pelvis, or thighs; contusions of the cellular membrane connected with these muscles during a tedious labour; the application of cold and moisture; sudden repression or diminution of the lochia and of the secretion of milk; food taken in too large quantities or of too stimulating a quality, especially when the patient does not give suck."

When we come to consider that the disease occurs in all conditions of life and healthiness of location, and under every circumstance regarding parturition; in the city as well as in the country, on the mountain and in the valley, whether the lochia be moderate or profuse, and whether the woman gives suck or not: I say, when we take into view these circumstances, does it not evidently appear that few of the preceding observations are worthy of much attention? —

Proximate Cause.

This disease has been attributed to suppression of the lochia, to deposits or redundancies of milk, and to cold.

Mauriceau, a French writer, imagined it to be a reflux of the lochia in the past.

was attributed it to a *degré de lait* [illegible]

[illegible] in a general way, [illegible] or [illegible] with [illegible] or less [illegible] [illegible] of the [illegible] and a deposit of milk equally [illegible] in the [illegible]?

In Wale says, that the proximate cause of the disease is an obstruction, deterioration and accumulation of milk in the breast, and that the obstruction is occasioned by some accident happening during labour, or some state peculiar to mind-bed, as the disorder only happens to lying in women.

I have already stated that the disease is not confined to lying in women alone; but that it occurs in the female indiscriminately as lactation; and, upon the authority of Cirse and others even in the male subject.

In [illegible] case, relieve [illegible] the symptoms.

2. Upon the subsidence of the inflammatory, or complete obstruction and the forming the abscess. [illegible] days from the [illegible] in the opposite breast, and the diameter of the tube is enlarged or enlarged totally closed by the indurated [illegible] the supposition that [illegible] [illegible] to real [illegible] subject

to the due time that would be sufficient for the [illegible] of the [illegible] of force of [illegible].

Dr. Hall, in his Essay on this disease says, page 204 "That the proximate cause is an inflammation of the muscles, cellular membrane, and inferior surface of the tibia, and in some cases [illegible] the inflammation may be communicated, in these cases to the large blood vessels, nerves, and the lymphatic vessels and glands imbedded in them."

Much credit is due the Doctor for his ingenious estimate of the parts affected: if he had but comprehended in this calculation the periosteum, the bones and their appendages, he would certainly have hit upon the seat of the disease. He confounds a number of parts whose actions are entirely distinct. He knows that the cutis vera is a very vascular membrane, and that its vessels in the healthy state admit red globules: but according to this theory, they must be rejected when it is in a state of inflammation, a circumstance entirely opposite to every observation, and contrary to the established laws in inflammation.*

* See page 5 in Introduction

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Mr Crisp of Gloucester has considered the treatment and of the swelling, so called in the mammary gland "milk-leg" and says, "and it would be an unnecessary to assume there is a possibility, that the original seat of obstruction and inflammation may in some instances be in the principal trunk of the absorbents, and the swelling consequent to the inflammation of the trunks will be the same whether it be in immediate in the lymphatics or in the glands the only distinction of symptoms

Dr Hey, also, speaks of the same phenomena with the same. He says "the swelling is in general on the more glandular and superficial parts of the extremity."

Dr. Cooper, in his Medical Gazette Vol. iii says "that the primary cause is an inflammatory affection of the absorbents of the part; the first swelling, or the milk he observes "clearly proves the distinction between the stage of vessels affected and that of the corporeal system: the absorbent are considered as agents of conveying their fluids by the thickness of the coat and the obstruction of the glands; but the structure being in a sound state the cataliments continue to pour out their fluid, which not being absorbed must stagnate in the cellular membrane."

Dr. F. in the [illegible] above [illegible] to [illegible] as [illegible] opinions which [illegible] appear to [illegible] the [illegible] to have adopted. In the case of a [illegible] who was treated with his disease the [illegible] observes, [illegible] "[illegible] affecting my mind, I felt great hardness and enlargement in the glands in groin and thos of the [illegible]: the pain was [illegible] increased and varied for a little [illegible] above the [illegible], but the extreme tension of the skin prevented me from [illegible] them to any considerable extent."

A friend of mine gave me a cursory account of a case that came under his notice: "Upon examination," says he, "I found three [illegible] a [illegible] tumor situated in the groin, one just above the knee on the inner side, and one in the calf of the leg. They all appeared to be [illegible] for [illegible] no [illegible] of [illegible] the [illegible] [illegible]."

Is not probable that, in this [illegible] [illegible] some [illegible] to the [illegible] [illegible]?

* [illegible] ent of this case consisted [illegible] in the extirpation of the Sella Maxima and Adenal [illegible], and the [illegible] of [illegible] [illegible].

[illegible] the most prominent theories on the disorder, I shall [illegible] say that I believe it depends [illegible] disease affecting [illegible] the lymphatic system of the [illegible]. I have quoted the opinions of three very eminent authorities, viz. Lisman and Ferrier; and I am happy to have it in my power to add to these the name of Professor James who has had so little experience in the complaint.

Treatment.

In giving the treatment of this disease, I shall divide it into two stages, viz. first, the inflammatory stage. In this stage, and the attendant system has the natural or healthy character, we will need a very different treatment to be adopted, as it is a disease attacking it, and is loose, bounding, tender to the touch and very much swelled.

The indications are

1st. To repress inflammation and relieve the pain.

2d. To remove the cause by purging or absorption.

To fulfil the first indication we must have recourse to

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bloodletting. This operation must be repeated, as to its extent, by the discretion and sound judgment of the practitioner. It may, with safety be repeated to and several times extracting pints in succession at a time but the evil doubtless is greater than the constitution of the patient.

Co-operating with Dr. Turgin will be most in order. Active cathartics of the Mercurial and saline class are indicated in the first case in the same; after which the bowels may be kept gently open by one of the neutral salts and should finally the Sulphate of Magnesia.

After these depletory measures have been used, we may then resort to Opium if necessary to remove the pain; and we should enjoin perfect rest and a recumbent posture.

In most the second intention in some type Diaphoretics may be resorted to. These determine the blood to the surface and thereby reduce a given flow of blood; thus detracting from the revolting mass; they enable excitement, regulate arterial action, counteract irritation both general and local, remove the pain and tension and in some measure tend to reduce the swelling. Some one of the internal injections

as generally used. [illegible] may be derived from the [illegible] [illegible] may be given either in the [illegible] [illegible] in the form of [illegible] [illegible] or in combination with Nitras Potassae, common Nitre, in the proportion of gr. x or ten [illegible] of the [illegible] other remedies may be [illegible]

The diet should be now consisting of farinaceous articles, such as Rice, Tapioca, [illegible] &c. The Vegetable Soup recommended by [illegible] may be used. It will be found very palatable [illegible] to the patient.

To counteract the [illegible] irritation various local applications must be attended to.

Blisters applied to the upper and inner part of the thigh, and to the calf of the leg, [illegible] great benefit and [illegible] be expected.

The [illegible] or Vinegar baths are a remedy of great utility. It tranquilizes the system by relieving the pain and irritation; it produces an effusion from the capillary [illegible], and thus diminishes the swelling. — It is best [illegible] by plunging hot bricks into vinegar, then wrapping

Warm water and [illegible] water or [illegible] water [illegible] [illegible] should be repeated three or four times a day.

Cold [illegible] [illegible] recommended by Dr [illegible] but I believe it is very bad because [illegible] in the centre.

If the limb should still remain [illegible], after the above means have been tried, we must resort to blistering, given so as to bring on a blister. This will seldom fail of producing ease.

Dr Hamilton of Dublin strongly recommends the application of leeches and blisters combined, which he thinks has often produced the best effects.

I come now to the Œdematous stage. At this period of the disease we consider that arterial action has been subdued, and little of the inflammation remains except the swelling of the limb. The extremity now takes on a flabby appearance, and when pressed upon by the finger the impression remains for some time. The treatment consists simply of scarifications in order to circumscribe unless we have lost sight of the venal system.

There may be great debility; in such case cones will be proper or there may exist considerable febrile action. Then instead of recommended with any intent intoxicate the nervous system I would recommend camphor and dilute in the proportion of grs 4 of the latter and grs 8 of the former; to be repeated every 4 or 6 hours. [illegible] local application, and should not be neglected in the general rules of bandage, applied from the foot to the groin. Friction with the camphorated liniment. [illegible] consist of [illegible] of red vinegar and applied to the groin [illegible] recommended by [illegible] is an old woman's remedy that is worthy of notice. It consists of a hen's gall stewed in brandy or [illegible] and bathed two or three times during the day. Friction simple with the hand and [illegible] with the flesh brush. The patient must not be allowed to stand or walk too much, and we should advise the use of a bandage to be worn for a reasonable time after the patient could have left well.

I have yet another remark to offer to which I would invite your particular attention. It is not applied to the case of this disease but a pattern of the day, which judgment

and veracity may be relied upon with confidence. I have reference to the Datura Stramonium, used in various forms, as an external application.

"In the early part of the year 1818," says Mr. — "I was applied to by a coloured woman who had a violent swelling in her right foot. Upon inquiry, I found, that five years before she had suffered severely from Phlegmasia Dolens (after child birth) in the thigh, leg and foot of the same side, and that every year at the same season her foot swelled four times as large as the other, and continued so painful for three months, that she was obliged to support it on a cushion. When I saw her, she had been confined about a month. As it was too early in the season to procure the plant, and having the Stramonium Ointment, I applied it freely, also keeping the foot warm and well wrapped up in flannel. In about a week's time she was able to stand at the wash tub, and before two weeks had elapsed she wore her shoe and went about as usual. There was no return of the disease." — "In the fall of 1818," the Gentleman observes, "I was sent for to see a Lady who suffered with Phlegmasia Dolens; one of the legs, (I think the

right one) I saw was white and very much swelled, and I was informed she was much swelled as high as the hip. After a free use of the Ointment the patient was able to walk a few steps in thirty-six hours, and in about a week was perfectly recovered." —

In what precise manner, or by what specific virtues, this powerful medicine acts so as to produce such instantaneous relief, is of minor consequence in a practical point of view; and little would be gained by entering into an elaborate or lengthy theoretical discussion upon its Modus operandi. I shall therefore dismiss the subject by saying, that the very respectable source from which the practice originated, and the great success attendant upon it, entitles the article to your particular attention, and to that of medical men generally. —